SLOVENSKI STANDARD

SIST EN 62052-21:2005

junij 2005

Oprema za merjenje električne energije (a.c./izmenični tok) - Splošne zahteve, preskusi in pogoji preskušanja – 21. del: Oprema za krmiljenje tarif in bremen (IEC 62052- 21:2004)

Electricity metering equipment (a.c.) - General requirements, tests and test conditions - Part 21: Tariff and load control equipment (IEC 62052-21:2004)

ICS 91.140.50

Referenčna številka
SIST EN 62052-21:2005(en)

EUROPEAN STANDARD **EN 62052-21**

NORME EUROPÉENNE

EUROPÄISCHE NORM December 2004

ICS 91.140.50 Partially supersedes EN 61037:1992 + A1:1996 + A2:1998 & EN 61038:1992 + A1:1996 + A2:1998

English version

Electricity metering equipment (a.c.) - General requirements, tests and test conditions Part 21: Tariff and load control equipment
(IEC 62052-21:2004)

Equipement de comptage de l'électricité - Prescriptions générales, essais et conditions d'essai Partie 21: Equipement de tarification et contrôle de charge (CEI 62052-21:2004)

Wechselstrom-Elektrizitätszähler - Allgemeine Anforderungen, Prüfungen und Prüfbedingungen Teil 21: Einrichtungen für Tarif- und Laststeuerung (IEC 62052-21:2004)

This European Standard was approved by CENELEC on 2004-07-06. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC
European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Ref. No. EN 62052-21:2004 E

Foreword

The text of document 13/1307/FDIS, future edition 1 of IEC 62052-21, prepared by IEC TC 13, Equipment for electrical energy measurement and load control, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 62052-21 on 2004-07-06.

This standard, in conjunction with EN 62054-11 and EN 62054-21, supersedes EN 61037:1992 (+ corrigendum December 1997) + A1:1996 + A2:1998 and EN 61038:1992 (+ corrigendum December 1997) + A1:1996 + A2:1998.

This standard is to be used in conjunction with the relevant parts of the EN 62054 and the EN 62059 series.

The following dates were fixed:

– latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement	(dop)	2005-07-01
– latest date by which the national standards conflicting with the EN have to be withdrawn	(dow)	2007-07-01

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and covers essential requirements of EC Directive(s). See Annex ZZ.

Annexes ZA, ZB and ZZ have been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 62052-21:2004 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-2-11	NOTE	Harmonized as HD 323.2.11 S1:1988(not modified).
IEC 62053-61	NOTE	Harmonized as EN 62053-61:1998(not modified).

Annex ZA
(normative)

Normative references to international publications with their corresponding European publications

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE Where an international publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

Publication	Year	Title	EN/HD	Year
IEC 60050-300	2001	International Electrotechnical Vocabulary - Electrical and electronic measurements and measuring instruments Part 311: General terms relating to measurements Part 312: General terms relating to electrical measurements Part 313: Types of electrical measuring instruments Part 314: Specific terms according to the type of instrument	-	-
IEC 60060-1 + corr. March	1989 1990	High-voltage test techniques Part 1: General definitions and test requirements	HD 588.1 S1	1991
IEC 60068-2-1	1990	Environmental testing Part 2: Tests - Tests A: Cold	EN 60068-2-1	1993
IEC 60068-2-2	1974	Part 2: Tests - Tests B: Dry heat	EN 60068-2-2 [1)]	1993
IEC 60068-2-6 + corr. March	1995 1995	Part 2: Tests - Test Fc: Vibration (sinusoidal)	EN 60068-2-6	1995
IEC 60068-2-27	1987	Part 2: Tests - Test Ea and guidance: Shock	EN 60068-2-27	1993
IEC 60068-2-30	1980	Part 2: Tests - Test Db and guidance: Damp heat, cyclic (12 + 12-hour cycle)	EN 60068-2-30 [2)]	1999
IEC 60068-2-75	1997	Part 2-75: Tests - Test Eh: Hammer tests	EN 60068-2-75	1997
IEC 60085	1984	Thermal evaluation and classification of electrical insulation	HD 566 S1 [3)]	1990

[1)] EN 60068-2-2 includes supplement A:1976 to IEC 60068-2-2.

[2)] EN 60068-2-30 includes A1:1985 to IEC 60068-2-30.

[3)] HD 566 S1:1990 is superseded by EN 60085:2004, which is based IEC 60085:2004.

Publication	Year	Title	EN/HD	Year
IEC 60269-3-1 (mod)	1994	Low-voltage fuses Part 3-1: Supplementary requirements for fuses for use by unskilled persons (fuses mainly for household and similar applications) - Sections I to IV	HD 630.3.1 S3 [4]	2002
IEC 60417-2 [5]	1998	Graphical symbols for use on equipment Part 2: Symbol originals	EN 60417-2 [5]	1999
A1	2000		-	-
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993
IEC 60695-2-10	2000	Fire hazard testing Part 2-10: Glowing/hot-wire based test methods - Glow-wire apparatus and common test procedure	EN 60695-2-10	2001
IEC 60695-2-11	2000	Part 2-11: Glowing/hot-wire based test methods - Glow-wire flammability test method for end-products	EN 60695-2-11	2001
IEC 60721-3-3	1994	Classification of environmental conditions Part 3: Classification of groups of environmental parameters and their severities Section 3: Stationary use at weatherprotected locations	EN 60721-3-3	1995
IEC 61000-4-2	1995	Electromagnetic compatibility (EMC) Part 4-2: Testing and measurement techniques - Electrostatic discharge immunity test	EN 61000-4-2	1995
IEC 61000-4-3	2002	Part 4-3: Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test	EN 61000-4-3	2002
IEC 61000-4-4	1995	Part 4-4: Testing and measurement techniques - Electrical fast transient/burst immunity test	EN 61000-4-4 [6]	1995
IEC 61000-4-5	1995	Part 4-5: Testing and measurement techniques - Surge immunity test	EN 61000-4-5	1995
IEC 61000-4-6	1996	Part 4-6: Testing and measurement techniques - Immunity to conducted disturbances, induced by radio-frequency fields	EN 61000-4-6	1996

[4] HD 630.3.1 S3:2002 is superseded by HD 60269-3-1:2004, which is based on IEC 60269-3-1:2004.

[5] See IEC 60417 database.

[6] EN 61000-4-4:1995 is superseded by EN 61000-4-4:2004, which is based on IEC 61000-4-4:2004.

Publication	Year	Title	EN/HD	Year
IEC 62054-11	2004	Electricity metering (a.c.) - Tariff and load control Part 11: Particular requirements for electronic ripple control receivers	EN 62054-11	2004
IEC 62054-21	2004	Part 21: Particular requirements for time switches	EN 62054-21	2004
CISPR 22 (mod)	1997	Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement	EN 55022 + corr. July	1998 2003
ISO 75-2	1993	Plastics - Determination of temperature of deflection under load Part 2: Plastics and ebonite	EN ISO 75-2 [7)]	1996

[7)] EN ISO 75-2:1996 is superseded by EN ISO 75-2:2004, which is based on ISO 75-2:2004.

Annex ZB
(normative)

Special national conditions

Special national condition: National characteristic or practice that cannot be changed even over a long period, e.g. climatic conditions, electrical earthing conditions.

NOTE If it affects harmonization, it forms part of the European Standard.

For the countries in which the relevant special national conditions apply these provisions are normative, for other countries they are informative.

Clause	Special national condition
7.4.4	**United Kingdom**

Replace the entire subclause by:

7.4.4 Short-circuit performance

7.4.4.1 Requirements

Short-time overcurrents shall not damage the output element. The output element shall still operate under specified conditions, the surroundings of the tariff and load control equipment shall not be endangered and protection against indirect contact shall be assured in all cases. The test circuit shall be practically non-inductive.

7.4.4.2 Test of s.hort-circuit performance of the output element

The output element shall be able to carry a short-time overcurrent of 3 000 A rms with a relative tolerance of + 0% to - 10 % for one half-cycle. The test circuit shall be practically non-inductive. The open-circuit source voltage of the generator used for this test shall be Un + 5 % to - 5 %. This test shall be carried out with the switch closed and the contacts shall remain closed after the test overcurrent has been applied. The test is passed if the protection against indirect contact remains assured and if the output element can still be operated correctly after the test overcurrent has been applied.

Where the output element is incorporated into an integrated meter the meter shall still meet the requirements for influence of short-time overcurrents in the relevant standard for the meter, including where the switch contact is in the current circuit. For polyphase meters and switches the test shall be perfomed phase-by-phase.

NOTE The short-circuit test is not applicable to the low rating d.c. switch (30 V, 30 mA) and to load switches up to a rated breaking current of 2 A.

Annex ZZ
(informative)

Coverage of Essential Requirements of EC Directives

This European Standard has been prepared under a mandate given to CENELEC by the European Commission and the European Free Trade Association and within its scope the standard covers all relevant essential requirements as given in Article 4 of the EC Directive 89/336/EEC.

Compliance with this standard provides one means of conformity with the specified essential requirements of the Directive[s] concerned.

WARNING: Other requirements and other EC Directives may be applicable to the products falling within the scope of this standard.

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INTERNATIONAL STANDARD

IEC 62052-21

First edition
2004-05

Electricity metering equipment (a.c.) – General requirements, tests and test conditions –

Part 21: Tariff and load control equipment

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Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE X

For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ELECTRICITY METERING EQUIPMENT (AC) – GENERAL REQUIREMENTS, TESTS AND TEST CONDITIONS –

Part 21: Tariff and load control equipment

FOREWORD

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 62052-21 has been prepared by IEC technical committee 13: Equipment for electrical energy measurement and load control.

This standard, in conjunction with IEC 62054-11 and IEC 62054-21, cancels and replaces IEC 61038:1990, *Electricity metering – Tariff and load control – Particular requirements for time switches* and all amendments.This standard is to be used in conjunction with the relevant parts of the IEC 62054 and the IEC 62059 series.

The text of this standard is based on the following documents:

FDIS	Report on voting
13/1307/FDIS	13/1316/RVD

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

The committee has decided that the contents of this publication will remain unchanged until 2013. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

A bilingual version of this standard may be issued at a later date.